

GUSTILIN, S.A.; SAYENKO, F.I. (Bogodukhov, Khar'kovskoy oblasti, Luzovaya ul.d.5); TUR, Z.A.

Abstracts. Ortop., travm. i protez. 26 no.3:66 Mr '65.  
(MIRA 18:7)

1. Iz khirurgicheskogo otdeleniya (zav. - Z.A.Tur) TSentral'noy bot'nitsy (glavnnyy vrach - S.A.Gustilin) Bogodukhovskogo rayona. Khar'kovskoy oblasti.

GUSTIN, Bozidar, ing.

Organization of work in machine industry. Masinogradnja  
1 no.l:9-11 F '58.

GUSTIN, J.

Ten years of the Litostroj Factory. P. 113

STROJNISKI VESTNIK. (Fakulteta za elektrotehniko in strojninstvo Univerze v Ljubljani, Institut za turbostroje v Ljubljani, Drustvo strojnih inzenirjev in tehnikov IR Slovenije in Strojna industrija Slovenije) Ljubljana, Yugoslavia Vol. 3, no. 4/5, Sept. 1957.

Monthly List of East European Accession (EEAI) LC Vol. 8, no. 6, June 1959.

Uncl.

DOC TECH SCI

GUSTIN, K.M., DOCENT

Dissertation: "Elements of the Theory of Stretching in Application to Devices for High  
Racking."

1 December 49  
Moscow Textile Inst.

SO Vecheryaya Moskva  
Sum 71

"APPROVED FOR RELEASE: 09/19/2001

CIA-RDP86-00513R000617620018-0

GUSTIN, K.M., kandidat tehnicheskikh nauk.

Device for increased drawing. Tekst.prom. 16 no.11:23-25 N 156.  
(MLRA 9:12)

(Spinning machinery)

APPROVED FOR RELEASE: 09/19/2001

CIA-RDP86-00513R000617620018-0"

GUSTIUC, L.; PALADE, L.; GHEORGHIU, E.

Winter wheat production on eroded soils with different slopes  
on terraced land. Studii biol agr Iasi 14 no.1:143-149 '63.

Gustiuc, L.; Chirita, G.

Soils of the Danube River delta, and their evolution. p. 241.

HIDROBIOLOGIA. (Academia Republicii Populare Romane. Comisie de hidrobiologie, hidrobiologie si Iahitologie) Burcuresti, Rumania. Vol. 1, 1958.

Monthly list of East European Accessions (EEAI) LC, Vol. 8, no. 8, Aug. 1959

Uncl.

CHIRITA, C.; GUSTIUC, L.; FLOREA, N.

Pedological excursions in the regions of Banat and Crisana. II.  
Studii agr Timisoara 9 no.1/2:27-38 Ja-Je '62.  
1. Membru corespondent al Academiei R.P.R. (for Chirita).

S/035/62/000/012/046/064  
A001/A101

AUTHORS: Gustkiewicz, Jerzy, Trutwin, Waclaw

TITLE: On some methods of measuring deformations of ground surface

PERIODICAL: Referativnyy zhurnal, Astronomiya i Geodeziya, no. 12, 1962, 13,  
abstract 12G95 ("Przegl. gorn.", 1961, v. 17, no. 5, 271 - 277,  
Polish)

TEXT: The authors describe methods of conducting measurements of ground surface deformations arisen due to underground mining works. Drawbacks of the common geodetic methods are noted and tensometric methods are proposed; the latter make it possible to conduct continuous observations of ground surface deformations, as well as those of surface buildings and constructions. The authors describe diagrams of mechanical and electrical tensometers, of a resistance tensometer with thermal compensation of the measuring circuit and element being measured, and of a string tensometer with vibrating string. Their suitability for measurements of deformations of ground surface, surface buildings and constructions is specified.

D. Yakubovich

[Abstracter's note: Complete translation]

Card 1/1

"APPROVED FOR RELEASE: 09/19/2001

CIA-RDP86-00513R000617620018-0

GUSTKIEWICZ, Jerzy

Soil tensiometry and its application to problems of mining  
damages. Archiw gorn 7 no.4:363-377 '62.

APPROVED FOR RELEASE: 09/19/2001

CIA-RDP86-00513R000617620018-0"

GUSTKIEWICZ, J.

Deformation ellipse of a terrain caused by mining extraction.  
Bul Ac Pol tech 11 no.3:137-142 '63.

1. Zaklad Hydromechaniki, Akademia Gorniczo-Hutnicza, Krakow.  
Presented by J.Litwiniszyn.

GUSTOMESOV, V.A. (Leningrad).

Demonstration of the operation of internal combustion engines. Fig. V  
shkole 7 no.1:84-87 '47. (MIRA 6:11)  
(Gas and oil engines)

GUSTOMESOV, V. A. 15-1957-7-9055D  
Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 7,  
p 32 (USSR)

AUTHOR:

Gustomesov, V. A.

TITLE:

Upper Jurassic Belemnites of the Russian Platform  
(Verkhneyurkiye belemnity Russkoy platformy) Author's  
abstract of his dissertation for the degree of Candidate  
of Geological and Mineralogical Sciences, presented to the  
MGU (Moscow State University), Moscow, 1956

ABSTRACT:

The story of the study of Upper Jurassic Belemnites and the  
morphology and terminology of belemnite skeletons is  
reported briefly; the method of investigation is explained;  
and the stratigraphic distribution of 48 species, belonging  
to 5 genera, is shown. There is a description of the new  
genus Spanio teuthis (genotype S. okschovi sp. nov.). The  
genus Cylindroteuthis is subdivided into three new

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15-1957-7-9055D

## Upper Jurassic Belemnites of the Russian Platform (Cont.)

subgenera--Cylindroteuthis, Lagonibelus, and Holcobeloides, which also comes from Holcobelus Stolley. The genus Pachyteuthis is also subdivided into three new subspecies--Pachyteuthis, Simobelus, and Microbelus, which apparently also comes from Homoloteuthis. Four zones are differentiated in the distribution of belemnites: the northern polar islands; the Timan (Cylindroteuthis and Pachyteuthis predominant, "Khisbury" [?]; absent); a central belt (same genera numerous, "Khisbury" few); and a southern belt, consisting of the Bryansk and Stalingrad regions, the Donets basin ("Khisbury" predominant, other genera rare), the Crimea, and the Caucasus ("Khisbury" predominant Cylindroteuthis and Pachyteuthis absent). Belemnites with an elongated rostrum compressed from the sides were good swimmers, but those having a rostrum depressed from below and a broad sulcus were less agile. They lived in various marine zones. The rostrum compensated for the uplifting force of the phragmocone but was not used for digging. Numerous traces of injuries to the rostrum, such as scars and scratches, sustained while the

Card 2/3

15-1957-7-9055D

Upper Jurassic Belemnites of the Russian Platform (Cont.)

animal was alive, attest to the variety of the belemnites' enemies, which included ichthyosaurs and sharks. The study of internal structures and the ontogenetic changes in size, examined in longitudinal and transverse sections, permitted the determination of genetic relations among the species studied and the identification of 15 new species and one genus.

V. V. Drushchits

ASSOCIATION: MGU (Moscow State University)

Card 3/3

GUSTOMESOV, V.A.

Ecology of upper Jurassic belemnites of the Russian Platform.  
Biul.MOIP.Otd.geol. 31 no.3:113-114 My-Je '56. (MLRA 9:12)  
(Russian Platform—Belemnites)

AUTHOR: Gustomesov, V.A. SOV/5-58-4-33/43

TITLE: New Upper Jurassic Belemnites of the Russian Plateau  
(Novyye verkhneyurskiye belemnity Russkoy platformy)

PERIODICAL: Byulleten' Moskovskogo obshchestva ispytateley prirody,  
Otdel geologicheskiy, 1958, Nr 4, pp 158-159 (USSR)

ABSTRACT: This is a summary of a report given by the author at a conference of the Moscow Society of Naturalists on 15 April 1958. Studying Upper Jurassic belemnites of the Russian plateau, scientists have discovered various new varieties. The author lists a number of different types of belemnites with short descriptions of each.

1. Geology 2. Fossil mollusca

Card 1/1

GUSTOMESOV, V.A.

Ecology of upper Jurassic belemnites; climatic zonation in the propagation, life habitat, mass intravital injuries. Trudy MGRI 37:190-204 '61.  
(Belemnites)

GUSTOMESOV, V.A.

Significance of lateral furrows of rostrum for belemnite taxonomy.  
Paleont.zhur. no.1:31-40 '62. (MIRA 15:3)

1. Moskovskiy geologorazvedochnyy institut imeni Ordzhonikidze.  
(Belemnites--Classification)

MIKHAYLOV, N.P.; GUSTOMESOV, V.A.; PEYVE, A.V., glavnnyy red.; MENNER,  
V.V., otv. red.; KUZNETSOVA, K.I., red.; TIMOFEEV, P.P., red.

[Boreal Late Jurassic Cephalopoda.] Boreal'nye pozdneiurskie  
golovanogie. Moskva, Nauka, 1964. 220 p. (Akademiiia nauk  
SSSR. Geologicheskii institut. Trudy, no.107).

(MIRA 17:10)

1. Chlen-korrespondent AN SSSR (for Peyve).

*GILSTICK A. H.*

## PLATE I BOOK EXPLOITATION

SOV/4896

Moskovskiy dom nauchno-tehnicheskoy propagandy imeni

P. K. Dzerzhinskogo

*Avtomaticheskie rotornyye lini - sredstva kompleksovo avtomatizatsii  
Priznachennye (Rotary-Transfer-Machine Lines) v Moshni. Po full  
Automation of Production) Moscow, Masiniz, 1960. 221 p. 10,000  
kopie printed.*

*Ed. I. N. Kostkin; Ed. of Publishing House: I. Vasil'yev; Tech.  
Ed. G. V. Semenov; Managing Ed. for literature on Metalworking  
and Machine-Tool Making; V. A. Minin, Engineer,  
and Machine-Tool Making; V. A. Minin, Engineer,*

*FUNCKI. The book is intended for technical personnel in the machin-*

*ery industry.*

*CONTENTS. This collection of articles explain the principles of full*

*automation based on the use of rotary transfer machines in various*

*industries. The rotary operational transfer machine used for basic*

*processing are discussed, and also the special power equipment and*

*accessories for these machines and (production) lines. No generalities are*

*mentioned. There are no references.*

*PART I. BASIC PROBLEMS IN THE FULL AUTOMATION OF*

3

*Product Manufacture**Rotors for Inspection Operations*

62

*Machkov, Yu. A. Rotors for Regular and "Herring" Contine*

76

*Kazakov, Yu. Ye. Doses of Loose and Liquid Materials in*

85

*Rotary Transfer Machine Lines*

94

*Ornabert, I. I. Rotors for Assembling and Packing*

108

*Ostrov, A. N. Rotors for Transfer and Feeding*

119

*PART II. SPECIAL POWER EQUIPMENT AND DEVICES FOR ROTARY*

133

*TRANSFER MACHINE LINES*

148

*Andreyev, A. O. Mechanical Rotors*

152

*Dmitrievskiy, V. V. Hydraulic Drives for Rotors*

162

*Belyayev, A. N. Electric Devices for Rotors (Used) for*

177

*Inspection, Caging, Operations**Fedorov, N. M. High-Frequency Electric Equipment for*

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*Rotors (Used) for Heat Treatment*

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*Zhukovskiy, V. M. Equipment for Rotors (Used) for*

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*Thermochemical Processing*

217

*PART III. SPECIAL ROTARY TRANSFER MACHINE LINES*

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*Semenov, Yu. M. Automated Multiproduct Rotary Transfer*

235

*Machine Line for Manufacturing of Plastic Articles*

245

*Chesin, V. P. Assembly Line for 38 mm Pitch Roller*

252

*Chains for Combines*

260

*Sokolov, V. S. Automatic Rotary-Transfer Machine Line for*

268

*the Manufacture of Welding Electrodes*

276

*AVAILABLE: Library of Congress (TJ1189.M6)*VK/dam/61  
4/24/61

Card 4/4

GUSTOV, A.A.

The LVV-1 automatic transfer machine line. Biul.tekh.-ekon.-  
inform.Gos.nauch.-issl.inst.nauch.i tekhn.inform. 16 no.7:21-24  
'63. (MIRA 16:8)  
(Machine tools) (Automation)

GUSTOV, A.A.

Transfer -machine line for manufacturing hexahedral nuts.  
Biul. tekhn.-ekon. inform. Gos. nauch.-issl. inst. nauch.  
i tekhn. inform. 17 no.3:33-35 '64. (MIRA 17:9)

CUSTOV, B.A., inzh.

Mechanical method of determining the grain-size distribution of  
loose materials. Energ. stroi. no.20:95-97 '61. (MIRA 15:1)

1. Stalingradgidrostroy.  
(Soils--Analysis)

GUSTOV, F.I.

Shortcomings in the Voronezh road machinery station. Avt.  
dor 18 no.3:31-32 My-Je '55. (MLRA 8:9)  
(Voronezh--Road machinery)

L0737

S/120/62/000/004/002/047  
E032/E514

946736  
AUTHORS: Strel'tsov, N.S., Fedotov, G.M., Rozhdestvenskiy, B.V.,  
Gustov, G.K., Gamulina, V.Ye., Nifontov, Yu.L.,  
Indyukov, N.N., Bezgachev, Ye.A. and Kuryshov, V.S.

TITLE: The construction of the electromagnet for the 7 GeV  
proton synchrotron

PERIODICAL: Pribory i tekhnika eksperimenta, no.4, 1962, 15-19

TEXT: A description is given (including sectional drawings) of the electromagnet. The electromagnet incorporates four types of magnetic sections, namely: 1) bending sections for radial focusing (total number 42), 2) bending sections for radial defocusing (total number 53), 3) bending sections for radial defocusing, located at points of beam extraction (total number 3), and 4) quadrupole lenses with zero field on the orbit (total number 14). The magnetic circuits of all the sections are assembled from insulated steel sheets (the chemical composition of the steel is similar to D2 (E2) steel). The hyperbolic pole faces were made on a special milling machine and have a curvature of 2780 cm in the horizontal plane. The system used to retain the

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The construction of the ...

S/120/62/000/004/002/047  
E032/E514

steel sheets in position was such that the deformation of the hyperbolic face was  $+(0.1-0.15)\text{ mm}$  after two days and  $\pm 0.03\text{ mm}$  after two months. The design of the neutral pole faces of the bending magnets was such that their deformation and the electrodynamic stresses did not exceed 0.05 mm. The main winding consists of 48 turns connected in series and arranged in ten sections. The winding is made of rectangular copper piping which was manufactured by the Leningrad factory "Krasnyy Vyborzhets". In addition to the main winding, there are three compensating coils which are used to correct the magnetic field. Water cooling is used and the insulation is sufficient to withstand 2 kV. The extracting magnets, which are used to extract the beam into the experimental area, consist of a main coil (8 turns; copper piping) and two compensating coils (8 turns each; copper piping). Finally, the quadrupole lenses carry an 18 turn main winding and an 18 turn auxiliary winding, both in the form of copper piping. In order to facilitate the positioning of all the electromagnets, each of them carried special markers which were used to relate their position to the appropriate points

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The construction of the ...

S/120/62/000/004/002/047  
E032/E514

on the basic geodesic grid. Special mechanisms were used to adjust the magnets. They can be adjusted by  $\pm 2$  cm in the vertical plane to an accuracy of 0.001 cm and by  $\pm 8.5$  cm in the radial direction to an accuracy of 0.002 cm. The former adjustment is made with the aid of special wedges and the latter by a screw-driven mechanism. The azimuthal adjustment is made by simple wedge devices and can be achieved to an accuracy of  $\pm 0.05$  cm. There are 6 figures.

ASSOCIATIONS: Nauchno-issledovatel'skiy institut elektro-fizicheskoy apparatury GKAE (Scientific Research Institute of Electrophysical Apparatus GKAE) and Institut teoreticheskoy i eksperimental'noy fiziki GKAE (Institute of Theoretical and Experimental Physics GKAE)

SUBMITTED: April 6, 1962

Card 3/3

L 13221-65 EWF(1)/ENG(k)/EWT(m)/EPA(sp)-2/EPA(w)-2/EEC(t)/F/EEC(b)-2/EWA(n)-2  
Pz-6/Po-4/Pab-10/Pt-4 IJP(c)/SSD(b)/ASD(p)-3/BSD/AEDC(b)/RAIM(4)/EED(gs)/ESD(t)

DM/AT

ACCESSION NR: AP4047415

S/0089/64/017/004/0287/0294

3

AUTHORS: Gashev, M. A.; Gustov, G. K.; D'yachenko, K. K.; Komar, Ye. G.; Malyshhev, I. F.; Monoszon, N. A.; Popkovich, A. V.; Ratnikov, B. K.; Rozhdestvenskiy, B. V.; Rumyantsev, N. N.; Saksaganskii, G. L.; Spevakova, F. M.; Stolov, A. M.; Strel'tsov, N. S.; Yavno, A. Kh.

TITLE: Main technical characteristics of the "Tokamak-3" experimental thermonuclear installation

SOURCE: Atomnaya energiya, v. 17, no. 4, 1964, 287-294

TOPIC TAGS: thermonuclear pinch, thermonuclear fusion, plasma research, plasma pinch/ Tokomak-3

ABSTRACT: The "Tokamak-3" is intended for the investigation of a toroidal quasi-stationary discharge in the strong longitudinal magnetic field. The toroidal discharge is produced in the vacuum chamber.

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L 13221-65  
ACCESSION NR: AP4047415

ber by a vertical electric field, and acts as an equivalent secondary turn of a pulse transformer. The produced plasma pinch is stabilized with a longitudinal magnetic field of a toroidal solenoid, inside which the vacuum chamber is located. The magnetic core of the pulse transformer carries the primary vertical-field winding, the demagnetization winding, and the winding for induction heating. The set-up is fed from special power systems. The electromagnetic system, the power supply, and the vacuum system are described in some detail. The longitudinal field intensity reaches 40 kG. The vertical field values are 250 and 50 V per turn with pulse durations 10 and 50 milliseconds, and with programming of the waveform such as to maintain a constant current in the plasma pinch. The power supply delivers a peak power of 77,000 kW, maximum 7000 A, no-load voltage 11 kV, and stored energy 180 million Joules. The vertical field is fed from four capacitor banks rated 1000  $\mu$ F at 20 kV, 11,000  $\mu$ F at 10 kV, 78,000  $\mu$ F at 5 kV, and 30,000  $\mu$ F at 5 kV. The capacitor-bank parameters can be varied over a wide range. The vacuum in the liner does

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ACCESSION NR: AP4047415

not exceed  $1\text{--}2 \times 10^{-7}$  mm Hg during the interval between gas admission, with the pressure in the outside chamber being  $1\text{--}2 \times 10^{-6}$  mm Hg. Orig. art. has: 8 figures.

ASSOCIATION: None

SUBMITTED: 23Nov63

ENCL: 00

OTHER: 000

SUB CODE: NP, ME NR REF SOV: 000

Card 3/3

L 43088-65 EWT(m)/ EPA(w)-2/EWA(m)-2 Pab-10/Pt-7 IJP(c) JT/GS  
18  
6/0000/64/000/000/0197/0201  
ACCESSION NR: AT5007918

AUTHOR: Vladimirov, V. V.; Gol'din, L. L.; Kochkarov, D. G.; Tarasov, Ye. K.; B.  
Yakovlev, B. N.; Gustov, G. K.; Komar, Ye. G.; Kulikov, V. V.; Malyshov, I. F.;  
Monastyr, N. A.; Popkovich, A. V.; Stolov, A. M.; Stral'tsov, N. S.; Titov, V. A.;  
Vodop'yanov, F. A.; Kuz'min, A. A.; Kuz'min, V. F.; Mintsev, A. I.; Ruhashinsky,  
S. M.; Uvarov, V. A.; Zhdanov, V. H.; Filaretov, S. G.; Shirayev, F. Z.

TITLE: 60-70 Gev Proton Synchrotron 19

SOURCE: International Conference on High Energy Accelerators. Dubna, 1963. Trudy.  
Moscow, Atomizdat, 1964, 197-201

TOPIC TAGS: high energy accelerator, synchrotron

ABSTRACT: A 60-70 Gev proton synchrotron with strong focusing is being constructed  
not far from Serpukhov, as has been reported earlier (e.g. "Research Institute for  
Electro-Physical Equipment, Leningrad," in Proceedings of the International Confer-  
ence on High Energy Accelerators and Instrumentation (CERN, 1959), p. 373). The  
present report describes parameter changes and improvements in precision structural  
characteristics of the accelerator, and the present state of construction in mid-  
1963. The parameters of the magnet are presented in a table. A small change in  
the original plans permitted an increase in the length of a part of the free  
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L 43038-65

ACCESSION NR: AT5007918

sections, some of which are utilized for input and exit of beams. The super-period design is described. The lengthened sections were obtained as a consequence of shortening the focusing and defocusing blocks by 112 cm. The focusing properties of the magnetic channel were diminished consequently, but very little; and the limiting energy was lowered by 2-3 Gev. The construction of the magnet is described. Each of the magnetic blocks is divided lengthwise into 5 sub-blocks which are enveloped by the common winding. These sub-blocks consist of laminar two-millimeter silicon steel. These steel sheets were stamped out without subsequent mechanical working, and were subjected to sorting and intermixing in order to smooth out their magnetic characteristics. The sub-blocks are constricted by lateral welded plates without adhesion. Provision was made for windings on the poles in order to correct for pole nonlinearity and for variations in the drop reading. These windings make it possible to introduce artificial quadratic (square) nonlinearity that changes the dependence of the frequency of transverse oscillations during a pulse. In order to correct for straying of the residual field, provision has been made for windings on the yoke in series with the main winding. The sub-blocks must undergo calibration on a magnet stand in order to make correcting systems more precise and to determine the most convenient disposition of the sub-blocks along the ring. The winding of the electromagnet is made of aluminum busbars with hollow cores for cooling water. The length of the busbar is so selected that there would be no

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ACCESSION NR: AT5007918

2

welded joints inside the coils. The winding consists of 4 sections, two of which are disposed on the upper pole and two on the lower. The most important characteristics of the electromagnet and power supply system are described in a table. Also described are the vacuum chamber and accelerating field (obtained by 53 paired resonators with ferrite rings, which operate at the 30-th harmonic of revolution and give accelerating potential of 350 kilovolts). The ring tunnel and the general arrangement of the accelerator are shown in figures and described. The building for the injector and portions of the ring tunnel from the injector to the experimental room have been completed in the main and are ready for installation of equipment. This room, in the form of a single-aisle building without internal supports, permits one to work on beams brought into the inner and outer sides. A 90-meter arch covers this room, whose overall length is 150 meters. Provisions have been made for a second experimental room at the southwest part of the ring. Orig. has 4 figures, 2 tables.

ASSOCIATION: Institute teoreticheskoy i eksperimental'noy fiziki GKAE SSSR  
(Institute of Theoretical and Experimental Physics, GKAE SSSR), (2) Nauchno-  
issledovatel'skiy institut elektrofizicheskoy apparatury imeni D. V. Yefremova  
GKAE SSSR (Scientific Research Institute of Electophysical Apparatus, GKAE SSSR).

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L 43038-65

ACCESSION NR: AT5007918

(3) Radiotekhnicheskiy institute AN SSSR (Radio Engineering Institute, Academy of Sciences SSSR). (4) Gosudarstvennyy proyektnyy institut GKAЕ SSSR (State Planning Institute, GKAЕ SSSR).

SUB COME: EE, MP  
2

ENCL: 00

OTHER: 001

SUBMITTED: 26 May 64

NO REF SOV: 002

am/  
Card 4/4

GASHEV, M.A.; GUSTOV, G.Z.; D'YACHENKO, K.K.; KOMAR, Ye.G.; MALYSHEV,  
I.F.; MONGSTON, N.A.; POFKOVICH, A.V.; RATNIKOV, B.K.; ROZHDESTVENSKIY,  
B.V.; RUMYANTSEV, N.N.; SAKSAGANSKIY, G.L.; SPEVAKOVA, F.M.; STOLOV,  
A.M.; STREL'TSOV, N.S.; YAVNO, A.Kh.

Principal mechanical characteristics of the experimental thermo-  
nuclear plant "Tokamak-3." Atom. energ. 17 no.4:287-294 0 '64.  
(MIRA 17:10)

EWI(m) IJP(c)  
ACC NR: AT6031768

SOURCE CODE: UR/3092/66/000/004/0174/0181

AUTHOR: Arkhangel'skiy, F. K.; Ginzburg, Ye. L.; Gustov, G. K.; Kosyakin, M. N.;  
Urodkov, V. M.

ORG: none

TITLE: Certain technological features in the mass production of diaphragm-type wave-  
guides for traveling wave electron linear accelerators 48  
19 BY1

SOURCE: Moscow. Nauchno-issledovatel'skiy institut elektrofizicheskoy apparatury.  
Elektrofizicheskaya apparatura, no. 4, 1966, 174-181

TOPIC TAGS: traveling wave, waveguide, linear accelerator

ABSTRACT: A mass production technique is described for diaphragm-type waveguides used in traveling wave linear accelerators. The process involves the following operations: the stamping of cup billets, annealing, machining, and electrochemical polishing of cups, soldering of subsections made up of individual cups, and the soldering of sections from subsections. The waveguide consisting of the cups and the terminal matching section are made of deoxidized copper with a specific electric conductivity of not less than  $5.80 \cdot 10^7$  ohm/m. The cup billets are obtained by hot stamping from round rolled metal. The machining of stamped billets consists of four stages: coarse cutting, annealing, preliminary fine cutting and final machining. Difficulties were encountered

Card 1/2

APPROVED FOR RELEASE: 09/19/2001

Card 2/2 eph

CIA

GUSTOV, L. D.

AID P - 2912

Subject : USSR/Electricity

Card 1/1 Pub. 26 - 9/32

Authors : Gustov, L. D. and V. M. Zhuk, Engs.

Title : Feeding mechanism the switchgear

Periodical : Elek.sta., 7, 32-34, Jl 1955

Abstract : The authors discuss difficulties with solenoids for 110 and 220 kv oil circuit breakers at substations. Some suggestions on improving the operations are made. Two tables showing data on the storage battery SK-8 for the circuit breakers MKP-110M and the SK-18 for the MKP-220 are given. Three diagrams, 1 Russian reference, 1953.

Institution : None

Submitted : No date

GUSTOV, L.D., inzh. (Sverdlovsk); LEVIN, M.I., inzh. (Sverdlovsk);  
MARINOV, A.M., inzh. (Sverdlovsk); MYZIN, L.M., inzh. (Sverdlovsk);  
PETROKOV, A.P., inzh. (Sverdlovsk)

Sverdlovsk's 500 kv. substation. Elektrichestvo no.7:61-65  
J1 '60. (MIRA 13:8)  
(Sverdlovsk--Electric substations)

GUSTOV, St., prof., STOICHEVA, V.

On the formation and properties of the glass synthesized from syenite in the system  $\text{SiO}_2\text{-Al}_2\text{O}_3\text{-CaO-MgO-K}_2\text{O}$ . Godishnik khim tekh 7 no.1/2:119-136 '60 [publ. '61].

1. Chlen na Redaktsionnata kolegia "Godishnik Khimikotekhnologicheskii institut" (for Gutsov).

GUSTOV, V., inzh.

Design of snow-protection forest belts. Avt.dor. 25 no.11:23  
N '62. (MIRA 15:12)  
(Roadside improvement)

L 07336-67 EWT(m)/EWP(v)/EWP(j) IJP(c) WW/GG/GD/RM  
ACC NR: AT6034058

SOURCE CODE: UR/0000/66/000/000/0337/0340 <sup>54</sup>  
<sup>52</sup>  
<sup>B+1</sup>

AUTHOR: Voyutskiy, S. S.; Gol'danskiy, V. I.; Gul', V. Ye.; Gustov,  
V. V.; Yegorov, Ye. V.; Rayevskiy, V. G.

ORG: Institute of Chemical Physics, AN SSSR (Institut khimicheskoy fiziki AN SSSR); Moscow Technological Institute of the Meat and Dairy Industry (Moskovskiy tekhnologicheskiy institut myasnoy i molochnoy promyshlennosti); Moscow Institute of Fine Chemical Technology im. M. V. Lomonosov (Moskovskiy institut tonkoy khimicheskoy tekhnologii)

TITLE: Effect of radiation on the adhesion of certain polymers

SOURCE: Simpozium po radiatsionnoy khimii polimerov. Moscow, 1964.  
Radiatsionnaya khimiya polimerov (Radiation chemistry of polymers);  
doklady simpoziuma. Moscow, Izd-vo Nauka, 1966, 337-340

TOPIC TAGS: adhesion, elastomer, polyethylene, cellophane, polycaprolactam, glass, irradiation, finishing

ABSTRACT: A study has been made of the effect of radiation on the adhesion of certain elastomers or polyethylene to such substrates as cellophane, polycaprolactam films or glass. The specimens were prepared and irradiated with fast electrons with integral doses of up to  $10^8$  rad. It was shown that the adhesion attains a maximum at a given dose and

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ATD PREP

APPROVED FOR RELEASE: 09/19/2001  
Card 2/2

L 34041-66 EWT(1)/EWP(m)/EWT(m)/EWP(j) IJF(c) W/W/RM

ACC NR: AP6012921

SOURCE CODE: UR/0020/66/167/005/1077/1078

AUTHOR: Barkalov, I. M.; Gol'danskiy, V. I. (Corresponding member AN SSSR);  
Gustov, V. V.; Dremin, A. N.; Mikhaylov, A. M.; Tal'roze, V. L.; Yampol'skiy, P. A.

ORG: Institute of Chemical Physics, Academy of Sciences, SSSR (Institut khimicheskoy  
fiziki Akademii nauk SSSR)

TITLE: Shock wave vulcanization of rubbers

SOURCE: AN SSSR. Doklady, v. 167, no. 5, 1966, 1077-1078

TOPIC TAGS: vulcanization, rubber, shock wave

ABSTRACT: Continuing the study of polymerization in shock waves, the authors investigated the possibility of vulcanizing rubbers by use of a shock wave. Samples of NK<sup>15</sup> SKB<sup>15</sup>, "yupren"-1500, SKS-30A, SKD, and polyisobutylene rubbers were subjected to shock waves with amplitudes from 30,000 to 100,000 atm. The percentage of the gel fraction and the molecular weight of the network were determined in each sample. No cross-linking could be detected in polyisobutylene (a rubber having no double bonds in the macromolecule); only a certain degree of degradation took place. The shock-wave-induced cross-linking reaction in SKB rubber has a definite threshold character, the threshold pressure being about 35,000 atm. The gel fraction appears above this pressure, and at 80,000 atm an almost completely cross-linked vulcanization is obtained. A partial calcination is observed above 100,000 atm. The vulcanization phenomena observed occur at the instant the shock

UDC: 541.12.034.2

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L 34041-66

ACC NR: AP6012921

wave passes through the rubber, i. e., in a time of the order of  $10^{-5}$  sec. Thus, in SKB rubber (MW 80,000 – 200,000) at a pressure of 50,000 atm in the shock wave, over  $10^{19}$  cross-links are formed per gram in  $10^{-5}$  sec. Orig. art. has: 1 figure and 1 table.

SUB CODE: 11,07 / SUBM DATE: 16Nov65 / ORIG REF: 003 / OTH REF: 001

Card 2/2 J.O

GUSTOV, V. F.

Dissertation: "The Process of Crystallization and Volatilization of Impurities of the Air in the Regenerators of Air-Separating Equipment." Cand Tech Sci, Inst of Chemical Machine Building, Moscow, 1953. (Referativnyy Zhurnal--Khimiya, Moscow, No 4, Feb 54.)

SC: CUM 243, 19 Oct 1954

GUSTOV, V. F.

Crystallization and sublimation of impurities from air in  
air-separation regenerative heat exchangers. V. E. Gustov,  
Trudy, Vsesoyun. Nauch.-Issledovat. Inst. Rziseru-  
Mashinostroyen. 1956, No. 1, 3-21.—From classical equa-  
tions of state for CO<sub>2</sub> and H<sub>2</sub>O vapor, from heat capacity  
equations, and from the Newtonian cooling law, the author  
develops equations for the reduction of the partial pressure of  
CO<sub>2</sub> and H<sub>2</sub>O inside air-separation equipment. V. E. E.

TUMANOV, A. I.; GUSTOV, V. F.

"Investigation of the heat exchange in the regenerators of an air-fractionating plant by means of the heat-electric analogy."

report submitted for 2nd All-Union Conf on Heat & Mass Transfer, Minsk,  
4-12 May 1964.

All-Union Sci Res Inst of Oxygen Engineering.

36939  
S/081/62/000/007/017/033  
B156/B101

111105

Gustov, V. F.

AUTHOR:

TITLE: Effects of certain factors on crystallization and sublimation of impurities in the air in regenerators of air-fractionating apparatus

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 7, 1962, 399, abstract 7K114 (Tr. Vses. n.-i. in-ta kislorodn. mashinostr., no. 2, 1959, 64-82)

TEXT: The conditions during the prolonged operation of regenerators (Rg) in air-fractionating apparatus containing discs made of corrugated aluminum strip have been investigated. The experiments were carried out on a bench allowing the ratio  $\epsilon$  between the direct and the return flow of air to be varied over a wide range. Two types of strip, 34 and 20 mm high, were used. The accumulation of  $\text{CO}_2$  crystals on the checkerwork, and the distribution of the heat input up the height of the Rg, were

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Effects of certain factors on ...

S/081/62/000/007/017/033  
B156/B101

investigated at rates of air flow between 350 and 490 nm<sup>3</sup>/hr, and at values of  $\epsilon$  between 1.0 and 1.025. At  $\epsilon = 1.025$ , the usual value in the Rg of oxygen plants, the heat input is almost the same up the checkerwork. At a ratio of direct to return flow pressures of 4.5-5.0, with the Rg operating for long periods and with a checkerwork of 34 mm height, the heat input in the freezing zone must not exceed 8-9 kcal/mg per cycle, and may increase by 20-25% if the height of the checkerwork is reduced to 20 mm. Anti-freezing calculations for Rg must consist in selecting temperature conditions and checkerwork dimensions with which the specific heat input in the freezing zone does not exceed the values indicated above. [Abstracter's note: Complete translation.]

Card 2/2

TUMANOV, A.I., inzh.; GUSTOV, V.F., kand. tekhn. nauk

Electric model of a regenerator. Trudy VNIIKIMASH no.9:  
151-162 '65. (MIRA 18:6)

GUSTOV, Z. (g.Nikolayev)

Chemical cleaning of metals. Okhr.truda i sots.strakh. 3 no.3:  
69-70 Mr '60. (MIRA 13:7)  
(Metals--Finishing)

TOM'IN S. N., inzh., GUSTOV, V.F., kand. tekhn. nauk

Heat exchange in the regenerators of air separation units  
(studied on an electric model). Trudy VNIIKIMASH no.10:  
69-73 '65. (MIRA 18:9)

VINOKUROV, V.I.; GUSTOV, Yu.A.

Distortion of the correlation function of a random signal  
during its passage through an amplifier with a nonlinear  
characteristic. Izv. vys. ucheb. zav., prib. i no. 3:17-22 '65.  
(MIRA 18:11)

I. Leningradskiy elektrotekhnicheskiy institut imeni Ul'yanova  
(Lenina). Rekomendovana kafedroy teoreticheskikh osnov  
radiotekhniki.

Gustova, L. V.

USSR/Physical Chemistry. Some Questions Concerning Subatomic Structure of Matter. B-2

Abs Jour: Referat. Zhurnal Khimiya, No 2, 1958, 3477.

Author : Ye. P. Grigor'yev, L.V. Gustova, A.V. Zolotavin, B. Kratsik, T.V. Poleshchuk, O.V. Chubinskiy.

Inst : Leningrad University.

Title : On As<sup>76</sup> Emission.

Orig Pub: Vestn. Leningr. un-ta, 1957, No 10, 37-39

Abstract:  $\beta$  and  $\gamma$ -emissions of As<sup>76</sup> with  $T_{\frac{1}{2}} = 26.75$  hours are studied. The  $\beta$ -spectrum was studied with a  $\beta$ -spectrometer with double focussing. The  $\gamma$ -emission of As<sup>76</sup> was measured with a magnetic spectrometer for measuring the hard  $\gamma$ -emission by recoil electrons. 5  $\beta$ -lines and 6  $\gamma$ -lines were revealed, their E is as follows:  $350 \pm 30$ ,  $880 \pm 100$ ,  $1760 \pm 40$ ,  $2410 \pm 30$ ,  $2960 \pm 20$  kev and  $1.21 \pm 0.02$ ,  $1.43 \pm 0.03$ ,  $1.77 \pm 0.04$ ,  $2.10 \pm 0.03$ ,  $2.42 \pm 0.04$  Mev correspondingly.

Carri : 1/1

-1-

GUSTOVA, L.V.

48-7-16/21

AUTHORS: Peker, L.K., Gustova, L.V., Chubinskiy, O.V.  
TITLE: The Rotation Levels of Mg<sup>24</sup> (Rotatsionnyye urovni Mg<sup>24</sup>)  
PERIODICAL: Izvestiya Akad. Nauk SSSR, Ser. Fiz., 1957, Vol. 21, Nr 7,  
pp. 1013 - 1016 (USSR)  
ABSTRACT: It was the aim of the authors to check the conclusion of the generalized model according to which the conditions leading to the ellipsoidal equilibrium form of the nucleus are not only realized in the domain of the heavy nuclei ( $150 \leq A \leq 190$  and  $A \geq 222$ ), but also in the domain of the light nuclei, especially near  $A = 24$ . It is the purpose of this paper to clear up the type of the higher excited levels of the nucleus of Mg<sup>24</sup> ( $E > 4,12$  MeV). Figure 1 and the table show the experimental values on the state of the nucleus of Mg<sup>24</sup> up to the exciter energy of 9 MeV. The data on the excited states of Mg<sup>24</sup> were obtained as a result of the investigation of the β-decay of two isobaric nuclei and various nuclear reactions. A detailed report is given on the level  $\sim 8,4$  MeV, where various assumptions are made. Figure 2 shows and explains the scheme of the nuclear level of Mg<sup>24</sup>. The interpretation of the high excited

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48-7-16/21

The Rotation Levels of Mg<sup>24</sup>

levels of Mg<sup>24</sup> as rotating levels agrees with the conclusion of the model according to which the nucleus of Mg<sup>24</sup> possesses an axial-symmetric form of equilibrium. There are 1 table, 2 figures and 21 references, 2 of which are Slavic.

AVAILABLE: Library of Congress

Card 2/2

GUSTOVA, L. V.

48-22-2-15/17

AUTHORS: Gustova, L. V., Dzhelepov, B. S., Yermolov, P. F.; Chubinskiy, O. V.

TITLE: Hard  $\gamma$ -Radiation From Na<sup>24</sup> (Zhestkoye  $\gamma$ -izlucheniye Na<sup>24</sup>)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya Fizicheskaya, 1958,  
Vol. 22, Nr 2, pp. 211 ~ 215 (USSR)

ABSTRACT: As an introduction it is referred to already known investigation results (Refs 1 - 15). In this paper the  $\gamma$ -radiation from Na<sup>24</sup> in the range of energies above 3 MeV with the application of a  $\gamma$ -hodoscope was investigated. Methods of measurement and experimental equipment were used according to data from references 16 and 17. The basic results from Soviet research data from the years 1955 and 1956. In the chapter: The description of experiments it is stated that here a series of experiments was conducted with various sources and with varying magnetic fields. The preparations NaCl and Na<sub>2</sub>CO<sub>3</sub> served as sources, being irradiated with slow neutrons. The experiments were divided into two groups. 1) The  $\gamma$ -radiation of Na<sup>24</sup> was subjected to a thorough investigation with respect to its energetical composition at from 3 + 5,6 MeV. The

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48-22-2-15/17

Hard  $\gamma$ -Radiation From Na<sup>24</sup>

magnetic field was selected in such a way, that the intensity line at  $h\nu = 2,75$  MeV could not be recorded by the apparatus. The measurements were conducted at  $H = 1360$ , 1500 and 1675 with a cylindrical counter and at  $H = 1520$  Oe with a rectangular counter. The results from the first group: a) The line  $h\nu = 3,85 \pm 0,04$  MeV was established in the  $\gamma$ -spectrum of Na<sup>24</sup>. b) The upper limit of the relative intensities of the  $\gamma$ -transitions are compiled in the given table. In the chapter: Evaluation of results: the special characteristics of the  $\beta$ -decay are given, which, in an indirect way substantiates the hypothesis by J. Newton on the possibility of a  $\beta$ -decay of Na<sup>24</sup> on the level 5,22 MeV of Mg<sup>24</sup> with a subsequent emission of quanta ( $h\nu = 3,85$  MeV). The final conclusions lead to the assumption that the intensity of the soft  $\beta$ -spectrum with a limit energy of  $\sim 300$  keV is the same as the intensity of the  $\gamma$ -transition, that is to say,

$4 \cdot 10^{-2}$  % because the other  $\gamma$ -transitions from the level 5,22 MeV cannot be observed here. Therefore the value  $lg ft = 6,9$  was assumed for the soft  $\beta$ -transition. This result is given here to represent a permitted  $\beta$ -transition, which is somewhat slowed down by a K-prohibition. The probable value for  $K = 2$  (Ref 21) at the level 5,22 MeV of

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46-22-2-15/17

Hard  $\gamma$ -Radiation From  $\text{Na}^{24}$

$\text{Mg}^{24}$ . From this the probable values of the spins 3, 4 and 5 were taken. If  $I = 4$  or 5 the  $\gamma$ -transition from the level 5,22 must pass through the level 4,12 MeV ( $4^+$ ). Because, however,  $\gamma$ -rays ( $h\nu = 1,10$  MeV) are unknown, it was assumed here that  $I = 3$  is in accordance with the considerations by Newton. There are 5 figures, 1 table, and 21 references, 5 of which are Soviet.

AVAILABLE: Library of Congress

1. Sodium-Gamma radiation

Card 3/3

21(8)  
AUTHORS:

Gustova, L. V., Timofeyeva, L. P., Chubinskij, O. V.

SOV/56-35-5-56/56

TITLE:

The Hard  $\gamma$ -Radiation of Ag<sup>110\*</sup> (Zhestkoye  $\gamma$ -izlucheniye Ag<sup>110\*</sup>)

PERIODICAL:

Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1958,  
Vol 35, Nr 5, pp 1317-1318 (USSR)

ABSTRACT:

According to B. S. Dzhelepov and I. A. Yaritsyna (Ref 1)  $\gamma$ -rays with an energy of 1.67-2.26 MeV are emitted in the  $\beta$ -decay of Ag<sup>110\*</sup> ( $T \sim 250$  days). The authors of this paper investigated the  $\gamma$ -radiation of Ag<sup>110\*</sup> with an energy of more than 1.6 MeV by means of a  $\gamma$ -hodoscope. The method and the measuring apparatus have already been described in earlier papers (Refs 2, 3). Neutron-activated silver chips, which were enclosed in a glass ampoule, were used as a radiation source. Measurements were carried out at magnetic field strengths of  $H = 700; 730; 760; 810; 865$  Oe. The measured energies and intensities of the observed  $\gamma$ -lines are given in a table. A diagram shows the shape of the  $\gamma$ -spectrum of Ag<sup>110\*</sup> after elimination of the background for  $H = 760$  Oe. Decomposition of the spectrum into its components was carried out by taking

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The Hard  $\gamma$ -Radiation of  $Ag^{110*}$

SOV/56-35-5-56/56

the dependence on  $h\nu$  and  $H$  of the shape of the line due to the apparatus into account. In connection with decomposition also the share of external and internal bremsstrahlung was taken into account. The spectral range of 2.05-2.30 MeV could not be divided into its components because of the comparatively grave statistical measuring errors ( $\sim \pm 50$ ). The results of such a decomposition are given in a table. The measurements discussed permit approximate estimation of the intensity of the  $\gamma$ -lines observed. The (provisional) results obtained concerning the hard  $\gamma$ -radiation of  $Ag^{110*}$  were submitted at the 7. annual Congress on Nuclear Spectroscopy. The authors thank V. A. Krutov for valuable advice and M. D. Novosil'tseva who placed the aforementioned radiation source at their disposal to be used for the work described. There are 2 figures, 1 table, and 4 Soviet references.

ASSOCIATION: Leningradskiy Gosudarstvennyy universitet (Leningrad State University)

SUBMITTED: August 16, 1958

Card 2/2

USCOMM -DC-61008

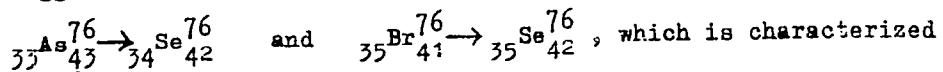
21(8)  
AUTHORS: Gustova, L. V., Chubinskiy, O. V. SOV/56-35-6-8/44  
TITLE: The Hard  $\gamma$ -Radiation of As<sup>76</sup> (Zhestkoye  $\gamma$ -izlucheniye As<sup>76</sup>)  
The As<sup>76</sup> Decay Scheme (Skhema raspada As<sup>76</sup>)  
PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1958, Vol 35,  
Nr 6, pp 1369-1379 (USSR)  
ABSTRACT: In their introduction the authors shortly mention the investigations of the  $\beta^-$  and  $\gamma$ -spectra of As<sup>76</sup> (Refs 1-13) and show (Fig 1) the As<sup>76</sup>  $\rightarrow$  Se<sup>76</sup> decay scheme according to references 11 and 13. The present paper is intended to find out 1) whether there exists a  $\gamma$ -line with  $h\nu = 1.76$  Mev and 2) whether a  $\gamma$ -transition with an energy  $> 2.1$  Mev exists. The experimental method employed for this purpose as well as the devices have already been described (Refs 14, 15). A cellulose target of 150 $\mu$  thickness is used; the device was filled with a helium (87 %)-methane (13 %) mixture under 300 torr; the energy interval breadth of the spectrum, which was recorded by the instrument, was proportional to the applied magnetic field (from 1 Mev at H = 500 Oe to 2 Mev at 1000 Oe). First, work was carried out with two As<sub>2</sub>O<sub>3</sub>-preparations (H = 1050 Oe, Fig 2), after

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The Hard  $\gamma$ -Radiation of As<sup>76</sup>, The As<sup>76</sup> Decay Scheme

SOV/56-35-6-8/44

which pure arsenic was used as a source (Working out of the method, separation, and purification: M. K. Nikitin). The source consisted of 0.72 g pure arsenic in a quartz ampoule (47 mm long, 7 mm thick) and had a primary activity of ~750 mC. Work was carried out at the following H-values: 970; 900; 810; 713; 630; 607; 550 Oe.  $\gamma$ -lines with the energies  $2.65 \pm 0.04$ ;  $2.42 \pm 0.05$ ;  $2.08 \pm 0.03$ ;  $1.76 \pm 0.04$ ;  $1.43 \pm 0.05$ ; and  $1.21 \pm 0.04$  Mev were found. The intensities corresponding to these lines were determined as follows: 4.6, 5.7, 100, 37, ~54, ~500. Table 1 compares the lines found by a number of authors and the intensity conditions with the results obtained by the authors of the present paper. Figure 8 shows the decay scheme suggested by the authors:



by a large number of details and is also discussed in detail. It is suggested that the following excited levels exist in the Se<sup>76</sup> nucleus: 0.56 Mev ( $2^+$ ); 1.21 Mev ( $2^+$ ); 1.76 Mev ( $1;2^+$ ); 2.07 Mev ( $1;2^+$ ); 2.42 Mev ( $2;3^+$ ); 2.64 Mev ( $3^+$ ). Also the existence of the levels 1.02 Mev ( $0;4^+$ ) and 1.26 Mev ( $0;4^+$ ) is possible (see figure 8).

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The Hard  $\gamma$ -Radiation of As<sup>76</sup>. The As<sup>76</sup> Decay Scheme

SOV/56-35-6-8/44

The authors finally thank L.F. Popova and T.V. Poleshchuk for their cooperation, M.K. Nikitin for preparing the sources, and B.S. Dzhelepov and P.P. Zarubin for their interest and discussions.-There are 8 figures, 2 tables, and 28 references, 6 of which are Soviet.

ASSOCIATION: Leningradskiy gosudarstvennyy universitet  
(Leningrad State University)

SUBMITTED: June 17, 1958

Card 3/3

S/056/60/039/006/020/063  
B006/B056

AUTHORS: Artamonova, K. P., Gustova, L. V., Podkopayev, Yu. N.,  
Chubinskiy, O. V.

TITLE: The  $\gamma$ -Spectrum of Na<sup>24</sup> in the Energy Range of 2.5 - 5.5 Mev

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1960,  
Vol. 39, No. 6(12), pp. 1593 - 1595

TEXT: The  $\gamma$ -hodcsope of the NIFI LGU (Scientific Research Institute of Physics of Leningrad State University) was used to examine the hard  $\gamma$ -spectrum of Na<sup>24</sup>. The gamma source was a Na<sub>2</sub>CO<sub>3</sub> preparation with a primary activity of 3.4 curies. Five measurement series were produced and examined at different magnetic field strengths (see Table). Beside the known line with 3.850 Mev, a line with (4.230±0.050) Mev was found. The relative intensity of these two was determined from the series I-III as 1 : 0.018, where the error is 35 - 40%. Also the relative intensities of the  $\gamma$ -transitions  $h\nu = 2.75, 3.85$ , and 4.24 Mev were determined by comparing the line areas of the 3.85-Mev line and the 4.24-Mev line with the

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The  $\gamma$ -Spectrum of Na<sup>24</sup> in the Energy Range  
of 2.5 - 5.5 Mev

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B006/B056

V

2.75-Mev line.  $I_{3.85}/I_{2.75} = (9 \pm 2) \cdot 10^{-4}$  and  $I_{4.24}/I_{2.75} = (1.5 \pm 0.5) \cdot 10^{-5}$  was found. If one assumes that the intensity of transition  $h\nu = 2.75$  Mev is equal to one quantum per decay, the intensities of the 3.85- and 4.24-Mev transitions will be  $9 \cdot 10^{-4}$  and  $1.5 \cdot 10^{-5}$  quanta per decay. For the upper limit of the intensity of the  $\gamma$ -transition  $h\nu \approx 5.22$  Mev, which is possible according to the Na<sup>24</sup> decay scheme, a value of  $2 \cdot 10^{-7}$  quanta per decay is estimated. A 4.12-Mev  $\gamma$ -transition could not be found. For the  $\beta$ -transitions with the limiting energies 0.29 and 1.27 Mev, the reduced half-lives were estimated:  $\log ft = 6.6$  and 10.7, respectively. The authors thank B. A. Yemel'yanov for his help and N. D. Novosil'tseva for placing the source at their disposal. There are 1 figure, 1 table, and 5 Soviet references.

ASSOCIATION: Leningradskiy gosudarstvennyy universitet (Leningrad State University)

SUBMITTED: July 15, 1960

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15363  
S/056/63/044/001/018/067  
B108/B100

24, 6600

AUTHORS: Gustova, L. V., Nemilov, Yu. A., Pobedonostsev, L. A.

TITLE: Polarization of 6.5-Mev deuterons on their elastic scattering from Ti, Fe, and Ni

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 44,  
no. 1, 1963, 100 - 102

TEXT: Double scattering experiments were made with 6.5-Mev deuterons. The primary scattering was through an angle of 55°. The secondary target was adjusted after the primary scattering by means of a photographic film; its angle could be varied from 27 - 75°. Both targets were made of the same material (2 mg/cm<sup>2</sup> of Ti, Fe, or Ni). The angular asymmetry of scattering was expressed by the quantities  $\epsilon_1 = \frac{I(0^\circ) - I(180^\circ)}{I(90^\circ) + I(270^\circ)}$  and  $\epsilon_2 = \frac{I(0^\circ) + I(180^\circ)}{I(90^\circ) + I(270^\circ)} - 1$ . The asymmetry of scattering was practically the same for all three elements, from which it is concluded that it is only the average properties of all the nucleons in the nucleus which are important in the polarization phenomena involving 6.5-Mev deuterons.

Card 1/2

GUSTOWSKA, Irena

Activity of some enzymes in the blood serum in typhoid fever. Pol.  
tyg. lek. 17 no.36:1418-1422 3 S '62.

1. Z I Kliniki Chorob zakazywanych Akademii Medycznej w Warszawie;  
kierownik Kliniki: doc. dr med. K. Rachon.  
(TYPHOID) (ENZYME TESTS) (BLOOD CHEMICAL ANALYSIS)

GUSTOWSKI, Aleksander (Bydgoszcz, ul. M. Curie-Sklodowskiej 9, Szpital Wojewódzki)

Clinical characteristics of the premenstrual tension syndrome. Gin. polska  
29 no.4:413-420 July-Aug 58.

1. Z Przychodni Endokrynologicznej dla kobiet w Warszawie Kierownik: doc.  
dr med. J. Teter.

(PREMENSTRUAL TENSION, manifest.  
clin. characteristics (Pol))

GUSTOWSKI, Aleksander; KONKWINA, Henryk

Underdevelopment of the genital system and beasts in amenorrhea  
related to hormonal factors. Gin.polska 30 no.3:327-334 Wy-Je  
'59.

1. Z Poradni Endokrynologicznej dla Kobiet w Warszawie Kierownik:  
doc. dr med. J. Teter.  
(HYPOGONADISM)  
(AMENORRHEA)

GUSTOWSKI, Aleksander; STACHOWSKI, Ludwik

Acromegaly associated with primary amenorrhea and large uterine myoma. Gin.polska 30 no.3:335-340 My-Je '59.

1. Z Oddzialu Ginekologicznego Wojewodzkiego Szpitala Ogólnego z Instytutu Doskonalenia i Specjalizacji Kadr Lekarskich w Bydgoszczy Kierownik: dr med. J. Monsiorski.

(ACROMEGALY compl)

(UTERUS neopl)

(LWIONYOMA compl)

(AMENORRHEA compl)

GUSTOWSKI, Aleksander

Bio-typological studies in cases of premenstrual tension syndrome.  
Gin. polska 31 no.6:617-624 N-D '60.

l. Z Poradni Endokrynologicznej w Warszawie Kierownik: doc. dr  
med. J. Teter.

(SOMATOTYPES) (MENSTRUATION DISORDERS)

MONSIORSKI, Jerzy; GUSTOWSKI, Aleksander

Pre-cancerous and cancerous conditions in cases of complete uterine prolapse. Gin.polska 31 no.6:651-659 N-D '60.

1. Z Zakladu Ginekologiczno-Położniczego Studium Doskonalenia Lekarzy przy Miejskim Szpitalu Ogólnym w Bydgoszczy Kierownik Zakładu: dr med. J. Monsiorski Kierownik Oddziału Studium Doskonalenia Lekarzy: prof. dr med. J. Malecki.

(UTERUS NEOPLASMS compl)  
(UTERINE PROLAPSE compl)

GUSTOWSKI, Aleksander

Changes of the menstrual cycle following surgical operations and  
their relation to sexual underdevelopment. Ginek. Pol. 33 no.1:41-51  
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1. Z Poradni Endokrynologicznej w Warszawie Kierownik: doc. dr J. Teter.

(MENSTRUATION DISORDERS etiol)  
(SURGERY OPERATIVE compl)  
(GENITALIA FEMALE abnorm)

MONSiorski, Jerzy; GUSTOWSKI, Aleksander

Artificial vagina in a patient with isolated disorders in the development of secondary sex characteristics. Ginek. Pol. 33 no.1: 101-107 '62.

1. Z Zakladu Polozniczo-Ginekologicznego Studium Doskonalenia Lekarzy przy Szpitalu Miejskim Ogolnym Nr 1 w Bydgoszczy Kierownik Oddzialu SDL: prof. dr J. Malecki Kierownik Zakladu Polozn.-Ginek.: dr J. Monsiorski.

(VAGINA ~~abnorm~~)

GUSTOWSKI, Aleksander

Frequency of cancerous complications in cases of cervical  
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l. Z Zakladu Polozniczo-Ginekologicznego Studium Doskonalenia  
Lekarzy przy Miejskim Szpitalu Ogolnym Nr 1 w Bydgoszczy  
Kierownik: dr med. J. Monsiorski Kierownik SDL: prof. dr med.  
J. Malecki.  
(CERVIX NEOPLASMS) (POLYPI)

RUSINOWA, Elzbieta; GUSTOWSKI, Aleksander

Vicarious and supplementary retinal hemorrhage in endocrine  
ovarian functional disorders. Klin. oczna 35 no.3:467-472  
'65.

1. Z Oddzialu Chorob Oczu Szpitala Ogolnego Nr 1 w Bydgoszczy  
(Ordynator: doc. dr. med. E. Rusinowa).

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Krzysztof

Primary amenorrhea related to tumor of the pituitary gland  
(Report of 4 cases). Endokr. Pol. 15 no.3:309-319 My-Je '64

1. I Klinika Poloznictwa i Chorob Kobiecych Akademii medycznej  
w Warszawie (Kierownik: prof. dr. T. Bulski); Oddzial Endokry-  
nologiczny (Kierownik: doc. dr. J. Teter) oraz I Klinika Chorob  
Wewnetrznych Akademii Medycznej w Warszawie (Kierownik: prof.  
dr. A. Biernacki [decased]).

URBANSKI, Tadeusz; SERAFINOWA, Barbara; GUSTOWSKI, Włodzimierz;  
VENULET, Jan; JAKIMOWSKA, Krystyna; JANOWIEC, Mieczyslaw

Anti-tuberculous properties of ethyl acetoacetate isonicotinoylhydrazone (T-428). Gruslica 28 no.12:955-960 D '60.

1. Z Katedry Technologii Organicznej II Politechniki Warszawskiej  
Kierownik: prof.dr T.Urbanski i z Zakladu Farmakologii Instytutu  
Lekow, Kierownik: doc.dr J.Venulet.  
(ISONIAZID rel cpds)

GUSTOWSKI, Wladzimierz; LANGE, Jerzy

On the reaction of benzylidenemalonic and furfurylidene malonic esters with hydrazine and its derivatives. Rocznik chemii 36 no.1:163 '62.

1. Department of Organic Technology II, Institute of Technology,  
Warsaw.

GUSTOWSKI, Włodzimierz; KROSZCZYNSKI, Wojciech; LANGE, Helena

Separation of the glycoside complex of digitalis purpurea.  
Przem chem 39 no.3:175-177 Mr '60.

1. Zaklad Związków Naturalnych, Instytut Farmaceutyczny, Warszawa

GUSTOWSKI, Włodzimierz; KROSZCZYNSKI, Wojciech

A simple method of obtaining sparteine sulphate. Przem chem 39  
no.4:231-232 Ap '60.

1. Zaklad Związkow Naturalnych, Instytut Farmaceutyczny, Warszawa

GUSTOWSKI, Włodzimierz; KROSCZYNSKI, Wojciech; OZAROWSKI, Aleksander

Obtaining of lanatoside C. Przem chem 41 no.2:84-85 F '62.

1. Zaklad Związkow Naturalnych, Instytut Farmaceutyczny, Warszawa

GUSTOWSKI, Włodzimierz; URBANSKI, Tadeusz

Furan derivatives. Pt. 1. Rocznik chemii 37 no.4:437-442 '63.

1. Institute of Organic Synthesis, Polish Academy of Sciences,  
Warsaw.

GUSTSON, P.P.

Effect of cortical depression on the responses of the external  
geniculate body. Dokl. AN SSSR 150 no.4:945-948 Je '63.  
(MIRA 16:6)

1. Institut vysshey nervnoy deyatel'nosti i neyrofiziologii  
AN SSSR. Predstavлено академиком I.S. Beritashvili.  
(ELECTROENCEPHALOGRAPHY)  
(OPTIC THALAMUS)

MESHCHERSKII, R.M.; GUSTSON, P.P.

Cortical modulation of primary responses in lateral geniculate body. Physiol. Bohemoslov. 13 no.3:236-241 '64

1. Institute of Higher Nervous Activity and Neurophysiology,  
Academy of Sciences USSR, Moscow.

GUZENOV, P. N.

Effect of the removal of the visual projection cortical zone on  
the responses of the corpus geniculatum laterale in rabbits.  
Zhur. vys. nerv. deiat. 14 no.3:520-526 My-Je '64.

I. Institute of Higher Nervous Activity and Neurophysiology,  
U.S.S.R. Academy of Sciences, Moscow.

MSTIKOV, M. I., Sov. Bio Sci — (ed.s) "Metabolism of iodine in the ewes organism under conditions where it is insufficient in the food and drinking water," Moscow, 1960, 16 pp (All-Union Academy of Agricultural Sciences i. V. I. Lenin, All-Union Sci-Res Institute of Animal Husbandry)  
(KL, 35-60, 124)

GUSTUN, M.I., aspirant

Iodine content of soils, feeds, and drinking water and its metabolism  
in the sheep organism. Zhivotnovodstvo 22 no.2:88-89 F '60.

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zhivotnovodstva.  
(Iodine in the body) (Sheep--Physiology)

GUSTY, Zdenek [Husty, Zdenek]

Some oscillatory properties of a homogeneous linear differential equation of  $n^{\text{th}}$  order ( $n = 3$ ). Chekhol mat zhurnal 14 no.1:27-38 '64.

1. Vysoka skola zemedelska, Brno, Cerna Pole, Zemedelska 5.

BUSLAYEV, Yu.A.; NIKOLAYEV, N.S.; GUSTYAKOVA, M.P.

Studying solutions in the system HF - SiO<sub>2</sub> - H<sub>2</sub>O. Izv. Sib.  
otd. AN SSSR no. 10:57-63 '60. (MIRA 13:12)

1. Institut obshchey i neorganicheskoy khimii imeni N.S.  
Kurnakova AN SSSR.  
(Hydrogen fluoride) (Silicon oxide)

BUSLAYEV, Yu.A.; GORBUNOVA, Yu.Ye.; GUSTYAKOVA, M.P.

Zirconium and hafnium oxo-fluorides. Izv. AN SSSR Otd.khim.nauk  
no.2:195-201 F '62. (MIRA 15:2)

1. Institut obshchey i neorganicheskoy khimii im. N.S.Kurnakova  
AN SSSR.

(Zirconium fluoride)  
(Hafnium fluoride)

40139

S/078/62/007/007/011/013  
B119/B101

A.2420  
AUTHORS: Nikolayev, N. S., Buslayev, Yu. A., Gulyakova, M. P.

TITLE: Study of the interaction in the system HF - ZrF<sub>4</sub> - H<sub>2</sub>O at 25°C

PERIODICAL: Zhurnal neorganicheskoy khimii, v. 7, no. 7, 1962, 1685 - 1692

TEXT: The solubility isotherm of the system HF - ZrF<sub>4</sub> - H<sub>2</sub>O at 25°C in the HF concentration range between 0 and 70.49 % was studied. Using ZrF<sub>4</sub> · 3H<sub>2</sub>O as solid initial phase and following the method of investigation described in an earlier paper by the two first-mentioned authors with I. V. Tananayev (Zh. neorgan. khimii, 1, 274 (1956)). At 25°C, the system shows the following solid phases: Zr<sub>4</sub>O<sub>3</sub>F<sub>10</sub> · 6H<sub>2</sub>O at an HF concentration in the liquid phase of 0.51 - 7.26 % by weight; ZrF<sub>4</sub> · 3H<sub>2</sub>O at 8.50 - 29.26 % HF; HZrF<sub>5</sub> · 4H<sub>2</sub>O at 29.83 - 33.79 % HF; H<sub>2</sub>ZrF<sub>6</sub> · 2H<sub>2</sub>O at 33.79 - 70.49 % HF. The compound HZrF<sub>5</sub> · 4H<sub>2</sub>O was analyzed by x-ray diffraction, thermography, and thermogravimetry. It shows endothermic effects at 60, 100, 125, 300,

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B119/B101

Study of the interaction in the ...

and 315°C explicable as follows: at 60°C one H<sub>2</sub>O molecule is separated, at 100°C another and at 125°C a third in addition to an HF molecule, whereby the compound ZrF<sub>4</sub>·H<sub>2</sub>O is formed which is converted to Zr<sub>4</sub>OF<sub>14</sub> at 300 - 315°C. The latter hydrolyzes by air moisture and ZrOF<sub>2</sub> is the final result. The dissociation of the acids HZrF<sub>5</sub> and H<sub>2</sub>ZrF<sub>6</sub> was studied with the anion exchanger AH-2φ (AN-2f) using a method already described by the authors (Izv. Sibirsk. otd. AN SSSR, no. 10, 57 (1960)). Cryoscopic and conductivity measurements were made also. HZrF<sub>5</sub> is a strong acid; it decomposes, however, at a concentration of 0.1 moles/liter corresponding to H<sup>+</sup> + ZrF<sub>5</sub><sup>-</sup> ⇌ HF + ZrF<sub>4</sub><sup>-</sup>. H<sub>2</sub>ZrF<sub>6</sub> occurs in the equilibrium 2H<sup>+</sup> + ZrF<sub>6</sub><sup>2-</sup> ⇌ HF + H<sup>+</sup> + ZrF<sub>5</sub><sup>-</sup>. There are 6 figures and 3 tables. The most important English-language reference is: K. A. Kraus, G. E. Moor. J. Amer. Chem. Soc., 71, 3263 (1949).

SUBMITTED: September 28, 1961  
Card 2/2

L 9974-65 EWT(m)/EPF(c)/EPR/EWP(b) Pr-4/Ps-4 JD/JW/MLK

ACCESSION NR: AT4046216

S/0000/63/000/000/0093/0096

B

AUTHOR: Nikolayev, N. S. (Moscow); Buslajev, Yu. A. (Moscow); Gustyakova, M. P. (Moscow)

TITLE: The solubility of the fluoride salts of zirconium and hafnium in hydrofluoric acid

SOURCE: Yubileynaya konferentsiya po fiziko-khimicheskomu analizu. Novosibirsk, 1960. Fiziko-khimicheskiy analiz (Physicochemical analysis); trudy konferentsii.

Novosibirsk, Izd-vo Sib. otd. AN SSSR, 1963; 93-96

TOPIC TAGS: zirconium fluoride, hafnium fluoride, fluorozirconate, fluorohafnate, zirconium solubility, hafnium solubility, zirconium hafnium separation

ABSTRACT: The authors determined the solubility of ammonium and potassium fluoro-zirconates in hydrofluoric acid, and established the coefficient of separation of zirconium and hafnium by means of the radioactive indicator  $Hf^{181}$ . The results of the investigation showed that the solubility of ammonium and potassium pentafluoro-zirconate is similar. At the beginning, the solubility of ammonium fluoro-zirconate increases sharply with HF concentration, but changes little at high concentrations of HF. Chemical analysis gave an empirical formula of  $(NH_4)_2ZrF_6$  and  $K_2ZrF_6 \cdot H_2O$ . In contrast to  $(NH_4)_2ZrF_6$ , the solubility of  $K_2ZrF_6$  increases steadily with an increase in HF concentration. Pentafluoro-zirconates are more soluble in HF than hexa-

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ACCESSION NR: AT4046216

fluorozirconates. The coefficient of separation is 1.49, which indicates that the solubility of K<sub>2</sub>HfF<sub>6</sub> is 1.49 times as high as that of K<sub>2</sub>ZrF<sub>6</sub>. It was also established that during conversion of the hepta- and hexafluoro salts of zirconium and hafnium into the pentafluorosalts, the coefficient of separation of zirconium and hafnium increases. Orig. art. has: 2 tables, 2 figures and 3 formulas.

ASSOCIATION: none

SUBMITTED: 10Sep63

ENCL: 00

SUB CODE: IC

NO REF Sov: 002

OTHER: 001

Card 2/2

BUSLAYEV, Yu.A.; GUSTYAKOVA, M.P.

Composition of crystal hydrates and some properties of vanadyl fluoride. Izv. AN SSSR. Ser.khim. no.9:1533-1537 S '63.  
(MIRA 16:9)

1. Institut obshchey i neorganicheskoy khimii im. N.S.Kurnakova  
AN SSSR.

(Vanadium fluoride crystals)

BUSLATEV, Yu.A.; GUSTYAKOVA, L.I.

Solubility of  $\text{ThF}_4$  in HF. Zhar. neorg. khim. 10 no.5:652-655  
Mr '65. (MIRA 18:7)

1. Institut obshchay i neorganicheskoy khimii imeni N.S. Kurnakovaya  
AN SSSR.

KURNAKOVA, M.P.

Constants of fluoberyllate formation. Zhur. neorg. khim. 10  
no.2, 1524-1526 Jl '65. (MIRA 18;3)

I. Vsevobuch obshchey i neorganicheskoy khimii imeni N.S.  
Kurnakova AN SSSR.

L 8935-66 EWT(m)/EPF(n)-2/EWP(j)/T/EWP(t)/EWP(b) IJP(c) JD/WW/JN/JG/RM  
ACC NR: AP5027212 SOURCE CODE: UR/0078/65/010/011/2577/2579

AUTHOR: Nikolayev, N. S.; Buslayev, Yu. A.; Gustyakova, M. P.

ORG: None

TITLE: The difference in solubility of complex fluorine salts of zirconium and hafnium

SOURCE: Zhurnal neorganicheskoy khimii, v. 10, no. 11, 1965, 2577-2579

TOPIC TAGS: fluorine compound, zirconium compound, hafnium compound, solubility

ABSTRACT: Radioactive Hf<sup>181</sup> in the form of hafnium dioxide was dissolved in hydrofluoric acid (40%), the excess acid was evaporated off, and zirconium tetrafluoride trihydrate, ZrF<sub>4</sub>. 3H<sub>2</sub>O, containing 0.05% HfO<sub>2</sub>, was introduced into the solution obtained. The zirconium tetrafluoride was dissolved by heating, the solution was slowly evaporated until ZrF<sub>4</sub>. 3H<sub>2</sub>O started to crystallize out, and was then placed in a desiccator under KOH. The ZrF<sub>4</sub>. 3H<sub>2</sub>O crystals were filtered out and dried in air. The specific activity of the solid phase was then determined. Zirconium tetrafluoride trihydrate with a known specific activity (800-

Cord 1/2

UDC: 548.831.4'161-386+546.832.4'161-386